



## Local Animation: A Way Out of Poverty

One of the more remarkable creative developments since 2000 has been the explosion in animation production in the developing world, in particular Asia. Once seen as frivolous or unnecessary, animation is now acknowledged as a high-growth area and a critical component in the emerging economies being shaped by information technology.

The demand for more animation is being fuelled by several trends. Lucrative outsourcing contracts with major global film studios like Walt Disney and Warner Brothers get much of the attention. But even more importantly for small entrepreneurs, the rapid growth of information technology and mobile phones is fuelling demand for animation with a local flavour, which is an excellent way to make applications more attractive to users. As computers and animation software become cheaper, it is easier for entrepreneurs to compete with the bigger studios. It all started with the popularity of Japanese anime animation, which kicked the door open in the West, sparking an appetite for fresh, new styles unseen before.

The animation leaders in Asia are Japan, Republic of Korea, Philippines and Taiwan Province of China, with India rising quickly. As animation production is very lucrative and a labor-intensive business (labor take up 70 to 80 percent of business costs), other Asian countries such as India, China, Vietnam, Malaysia and Singapore have recently started their own industries.

The National Association of Software and Service Companies (NASSCOM) has forecast the Indian animation sector to gross overall turnover of US \$950 million in 2009, while its gaming industry will reach US \$300 million in 2009 (from US \$30 million in 2005). The global industry is huge: it is estimated that games will gross US \$11 billion and animation US \$35 billion by 2009. In the Philippines, growth has been 25 per cent a year since 2005 (National Statistics Office), and the government has been heavily promoting animation as a viable career and business opportunity. China was able to make US \$604 million in 2005. The AWN's Animation Industry Database lists 48 studio operating in the Philippines alone. Others benefiting are Thailand, Taiwan Province of China and Republic of Korea. And even in Africa, there have been attempts to get things going.

Ambitiously, China hopes to raise its home-made share of the animation pie from 10 per cent and to increase its overall animation programming from 5,000 hours/year to 16, 7000/year. In 2004, the Chinese government set up four animation schools: Communication University of China, Beijing Film Academy, China Academy of Art, and Tianjin Sorun Digital Media School. More than 200 animated films were produced in 2004.

Indian animation feature productions have exploded in the past few years. In 2005, animated feature Jai Hanuman started the current boom. Its quality marked a departure from past Indian productions and heralded in a new era. Importantly, it out-grossed any Disney film in India, and proved films featuring local topics could be commercially successful. It is a difficult market with 14 official languages and 1,400 dialects. At present, the huge Indian market has little locally produced animation to feed its needs. But by 2007, 71 Indian animation films were announced to be in production.

Productions in development draw heavily on India's culture and love of gods. They include Epiphany Films' The Dream Blanket, a Tibetan fair tale, and Graphiti studios' Action Hero BC, a teenager who fights evil.

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The world's animation producers scour India for talent to outsource Global films with some Indian production in them include Finding Nemo, The Lion King and The Adventures of Tenali Raman. [Toonz Animation Studio](#) based at the Technopark in Kerala, was called by Animation Magazine one of the top ten studios in the world.

In Africa, South Africa has by far the most dynamic and sophisticated animation sector. Ten years after the birth of democracy, hundreds of production companies and several 2D animation houses were established. In turn, South Africa advertises itself as a cheaper place to produce animation.

The highly successful South African 3D animated series Magic Cellar by Morula Pictures – the first of its kind based on African culture – was successfully sold to the US Home Box Office channel this year. Based on 20 folk tales, the stories were collected through interviews with elders in African villages. Mfundu Vundla, 58, who owns Johannesburg's Morula Pictures, South Africa's largest black-led studio, said his productions are meant to counter the perception of "Africans as unsophisticated, superstitious idiots who visited witch doctors to solve problems." It employs 60 people and dozens of actors.

In 2004, UNESCO's Africa Animated! was launched, with East Africa's first animation project. The participants undertook animation, drawing techniques, scriptwriting for animation and storyboarding. The project was launched to assemble resources and expertise for the production of culturally relevant children's animated cartoons and programmes in Africa. It sought to create a high-quality "African branded" training and production model, in order to make African animation competitive for regional organizations to produce animated TV series, Public Service Announcements (PSA) and short films.

The Nairobi office is seeking to establish a Regional Training and Production Centre for Animation in Kenya in 2008.

Moustapha Alassane of Niger and one of Africa's film pioneers, said "The good thing about animation is that you can do it on a shoe-strin budget. With the computer, animation is getting easier and any one can do it now. I want to encourage young Africans to use new technologies for animation."

#### LINKS:

- [Africa Animated: Initiative for African Cartoon Production](#): This UNESCO initiative brings together African artists and the audiovisual industry to increase production in Africa.
- [AnimationsA.org](#): The South African Animation Directory: The official website for the South African animation industry, it hosts lots of information on jobs, training, events and developments.
- [Animation World Network](#): this is the global networking portal for the world's animation industry, and is packed with news, jobs, tips, and training opportunities.
- [Animated-Divots.com](#): A list of the world's animation festivals and their websites:
- [Animation in Asia and the Pacific by John A. Lent](#): An excellent book on the Asian experience with animation and development.

## Dabbawalas Use Web and Text to Make Lunch on Time

The developing world's rapidly growing cities are bringing with them whole new ways of living and working. One rapidly expanding category of citizen is the office worker. A symbol of growing prosperity, the office worker also tends to be a time-poor person who often must commute large distances between home and workplace.

These long commutes mean that many workers have lost the old ability to go home for lunch. This has led to an expanding new field of business: catering to all these office workers' appetites.

Every morning Mumbai's legendary dabbawalas (it means "box-carrier" or "lunchpail man") fan out across the city to collect freshly prepared lunches from people's homes and restaurants. They then efficiently use the transport network to quickly deliver lunches to the customers' workplaces. Once just for the elite, the dabbawala lunch has become the norm for Mumbai's middle class office workers. Lunches are packed into small, metal tiffin boxes, ingeniously organized so each component of the meal is sealed in its own section and kept warm.

With a plethora of religious and cultural practices, Indians are particular about what they eat. In Mumbai there are 200,000 office workers receiving cooked lunches every day delivered straight to their desks. This is done by an army of 5,000 dabbawalas. While their delivery accuracy was already impressive - only six deliveries in a million go astray - they realized they had to adapt to the city's rapid changes. In addition to their network using trains, hand-carts and bicycles to get the lunches to desks, they have turned to the internet and mobile phone SMS text messaging to take orders.

It is a 125-year old industry that has grown at the rate of five to ten per cent a year and all are paid the same no matter what their function in the business.

With foreign direct investment into developing countries surging - according to the United Nations Conference on Trade and Development (UNCTAD), it rose by 12 per cent from 2005 to 2006 - the number of office workers is on the rise too.

The trend is especially pronounced in India, which is on track to overtake the United Kingdom as the world's fifth largest economy by 2010, according to investment bankers Goldman Sachs.

India's cities are booming. Mumbai is one of the top five global megacities as well as the world's most crowded metropolis. The dabbawalas are an excellent example of how a business can move with the times.

A key component in India's new-found success has been a willingness to do things better and become more efficient; the key to this is often information technology. The new technology for the dabbawalas has been built for them by software engineer Manish Tripathi - he has even been adopted as an honorary tiffinwallah.

"When people move to Mumbai for work, and need a lunchbox carrier, who do they ask?" he said. "They ask their friends, or their neighbour. Now, they just need to go to the website and they can find out how to get in touch with us. They can also get in touch with us via SMS."

The move online has been a great success said Tripathi: "We get 10 to 15 enquiries more a day via SMS and the website."

Raghu Nath Medge from the dabawalas cooperative said they are also making money by selling advertising on table mats. They have also turned to being a health service: they distribute health advice, beginning with this year's World AIDS Day. An "AIDS kit", comprising a car calendar and fliers on testing and counseling tied neatly with a red ribbon, was distributed ahead of World AIDS Day December 1.

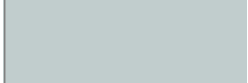
"The kit was attached to empty lunch boxes and delivered to about 100,000 clients' homes," said Raghu Nath Medge,

Targeting hungry office workers is a goldmine for others too: in Saigon, Vietnam, the Ben Thann restaurant capitalised on its proximity to an area with a fast-growing office worker population to increase its profits. "Since our restaurant began serving lunch for office workers our business has increased by 60 per cent. This increase in number of guests enjoying the new menu was the main reason for Ben Thanh's decision to introduce a buffet lunch," said Nguyen Thi Thu Thao, deputy manager of Ben Thanh Restaurant.

In the past, the dabawalas were visited by Prince Charles and British entrepreneur multimillionaire Richard Branson, to study their working methods. It looks like this next round of innovation will equally grab the world's attention.

### LINKS:

- [Dabbawalas at work](#): An excellent slideshow by the New York Times.
- [Mydabbawala.com](#): The official website of the dabbawalas.



## Mobile Phones Bring the Next Wave of New Ideas from the South

[Informa Telecoms and Media](#) estimates mobile networks now cover 90 per cent of the world's population - 40 per cent of whom are covered but not connected.

The rapid growth in take-up has made mobile phones the big success story of the 21st century. With such reach, finding new applications for mobile phones that are relevant to the world's poor and to developing countries is a huge growth area. It is estimated that by 2015, the global mobile phone content market could be worth over US \$1 trillion: relegating basic voice phone calls to just 10 per cent of how people use mobile phones.

Leonard Waverman of the London Business School has estimated that an extra 10 mobile phones per 100 people in a typical developing country, leads to an extra half a percentage point of growth in GDP per person.

The experience of the US \$100 laptops from the One Laptop Per Child Project (OLPC) offers an important lesson on making technology work for the poor: the business model has to come first. In the case of OLPC, the big computer manufacturers are already offering low-cost laptops with extensive software and other support: and out-selling OLPC. And it is mobile phones that are proving how fast take-up can be if users are willing to pay for the service on offer.

A new report by the [DIRSI \(Regional Dialogue on the Information Society\)](#) on mobile phones and poverty in Latin America and the Caribbean, unearths the strategies the poor use to access and use mobile telephony, and the main barriers to increasing usage. It also looks at how mobile phones have improved the lives of the poor.

The poor use them to strengthen social ties, increase personal security, and improve business and employment opportunities. Few share their phones and most own them. The only exceptions are Colombia and Peru, where the incentive is to share ownership. Most importantly, the study found that mobile phones are not a luxury good, but the most cost-effective solution to many problems.

Some 250 million Indians today have mobile phones. Many of them are people who make just US \$2 or US \$3 a day. More and more are getting access to computers and the internet, even in villages.

India's [Mapunity](#) is pioneering ways to reduce the stress and anguish of the daily commute to work - something that seriously erodes people's quality of life and affects their health. Owner Madhav Pai is using SMS technology to improve transportation in Bangalore by providing the Bangalore Traffic System's information on bus routes, locations and congestion - all in real time - to mobile phones. The service is free for subscribers to Airtel, and at a small cost for others.

The service works by collecting information on cell phone signal density to build up a map of congestion at different intersections in the city. Tracking congestion has had two benefits: it not only shows where the trouble spots are, it has also enabled mobile phone companies to know where to place extra relay towers to boost capacity and reduce network overload.

This technology effectively turns the mobile phone into a GPS (global positioning system) mapper, with real-time updates.

The company is incubated at the [N S Raghavan Centre for Entrepreneurial Learning at the Indian Institute of Management](#), Bangalore.

In Nairobi, Kenya computer science graduate Billy Odera's MoSoko uses an SMS text bulletin board system for buying and selling via mobile phones. He got the idea when he had to move out of his university dormitory and needed to sell things to the other students. He was also interested in finding an apartment to share with other newly graduated students somewhere downtown. Tired of sifting through irrelevant ads on bulletin boards, Billy developed an SMS bulletin board system to help connect buyers and sellers in Nairobi. Sellers text into the MoSoko SMS gateway with information regarding the type of item they would like to sell (a bicycle, TV, couch), their location, and the asking price for the item. This information is stored in a database and can be easily accessed via SMS by potential buyers.

More ingenuity can be found in Fultola, Bangladesh. A modest internet café with just four workstations it may be, but remarkably all four can access the internet: through just one mobile phone. This is all possible because of something called an EDGE-enabled (Enhanced Data Rates for GSM Evolution) mobile phone. One of the computers acts as a web server, while the other three workstations are connected to a small device no larger than a cigarette packet. All of this is wireless and possible because of the EDGE-enabled Motorola clamshell mobile phone using a USB cable connection to the server. The project is being supported by the [Ndiyo Project](#), [Grameen Phone](#) and [Grameen Telecom](#).

People use the internet centre to keep in touch with relatives, check market prices, and seek job opportunities or access government websites. The project was co-ordinated by a team working for the GSM Association, the global confederation of mobile phone operators. The aim was to explore the extent to which mobile networks could provide Internet connectivity in developing countries, and to demonstrate the extent to which mobile telephony can increase access to online resources.

In Ghana, [mPedigree](#) uses mobiles to fight counterfeit drugs. The plague of counterfeit medicines in Africa kill thousands, and it is estimated between 10 and 25 per cent of all drugs sold in the developing world are fakes (BASCAP – Business Action to Stop Counterfeiting and Piracy). And in Africa, this may be over 50 per cent (USFDA).

[mPedigree](#) founder Ashifi Gogo started his company to use mobile phones to protect people against counterfeit drugs and vaccines. "Buying medicine here is like Russian roulette," said Gogo. "I don't want people to have to choose between a drug that's safe and more expensive and a drug that's cheap and not genuine. Those choices shouldn't be there."

Ghanaian Gogo (also a graduate of Dartmouth's Thayer School of Engineering), lets consumers send an SMS to mPedigree to verify if a drug is legitimate while they are thinking about buying it in the drug store or the street market. The consumer types in the serial number found on the drug's packet to a short code (a five-digit number similar to the ones used to top-up mobile phone credits). The consumer then receives an SMS response verifying the drug's authenticity.

To publicise the service, mPedigree advertises in parallel with existing drug promotion campaigns by legitimate pharmaceutical companies. It is also getting publicity help from the local mobile phone provider, [Mobile Content in Ghana](#).

Gogo hopes to expand the service to Nigeria and Mozambique - and eventually the rest of Africa.

Gogo is really enjoying the whole experience of setting up this business: "It's fun!" he said. "It just feels so good doing this work."

#### LINKS:

- [IdeaMamaClub](#): This online invention and business start-up incubator connects inventors and social entrepreneurs with investors, creative support and global business networks.
- [Stockholm Challenge Awards 2008](#): An initiative of the Global Knowledge Partnership (GKP), it has four categories and looks for innovative projects in ICT.
- [Terranet](#): A Swedish company, it has developed a way to make calls between a network of cellphones in a geographically close area, free. A powerful development for entrepreneurs in the South looking for free calls. They are piloting this technology in Ecuador.
- [SME Toolkit](#): A free online resource aimed at the South to help entrepreneurs and small businesses access business information, tools, and training services to be able to implement sustainable business practices.
- [Entrepreneurial Programming and Research on Mobiles](#): EPROM, part of the Program for Developmental Entrepreneurship within the MIT Design Laboratory, aims to foster mobile phone-related research and entrepreneurship. Key activities include: development of new applications for mobile phone users worldwide.

## Flurry of Anti-poverty Innovations

Innovation is key to transforming the lives of the world's four billion poor. And it is at the core of much of the new thinking these days. While the world's poor can't rely on political developments, or wider macro-economic events to go their way, they can harness the power of invention, innovation and self-reliance to make big changes in the quality of their lives and increase income – and so can those who want to help them. New York Times journalist and author Thomas Friedman put it like this: "Africa needs many things, but most of all it needs capitalists who can start and run legal companies. More Bill Gateses, fewer foundations. People grow out of poverty when they create small businesses that employ their neighbours. Nothing else lasts."

In the 1940s, Austrian economist Joseph Schumpeter wrote that "the function of entrepreneurs is to reform or revolutionise the pattern of production." Schumpeter's definition remains at the core of an entrepreneurial approach that focuses on innovation and enterprise as a means of addressing social needs. "Social innovators" are pragmatic and embrace innovation to tackle social problems through both for-profit and non-profit models.

[International Development Enterprises India \(IDEI\)](#) is a non-profit that uses product invention to transform the lives of the poor and tackle hunger and malnutrition. Its approach is to take existing technologies and adapt them, reducing costs and improving effectiveness. By constantly evolving the design, they can focus in on making it cheap and relevant.

One innovation is the Treadle Pump: a foot operated, water pump for small plots of land. It enables crops to be grown in winter and summer – no need to rely on rain. And since women are key to farm life, it is physically easy for women to use. So far more than 350,000 small farms are using it. It has been calculated the pump increases household incomes by a minimum of US \$100/year.

Another of their innovations is the Affordable Drip Irrigation Technology Intervention. While drip irrigation systems have been for sale in India for the past 15 years, they were not relevant or affordable for small and marginal farms. IDEI adapted these technologies during trials from 1997 to 2000. Existing technologies suffer from two drawbacks: they are complicated to maintain and they are expensive to buy. A big challenge was demystifying the idea that crop irrigation methods were for only the big orchards. The irrigation systems are sold as kits and are scalable so that farmers can expand their systems if they want. IDEI has sold over 85,000 of the various irrigation kits.

Both inventions are designed to mimic traditional technologies and are inexpensive, thus maximising take-up by small farmers, who can recover the cost within one season of crops.

They not only do the research and development and product design and manufacturing, but also set up the vertically integrated marketing and sales network and make it viable for the private sector to step up and sell the kits.

[Paul Polak](#), the founder of the global International Development Enterprises, believes progress is only possible if products are sold at a fair market price. "When you give things away, you lack discipline in how you design them because you don't have to get feedback from the customer," he said.

In the village of Otse, Botswana in southern Africa, the [Godisa Technologies Trust](#) has brought affordable solar-powered hearing aids to the poor. Most of the employees are deaf, and as a non-profit social enterprise, its battery chargers – and its branded Solar Aid digital behind-the-ear (BTE) hearing aid – are all for use in developing countries. It is estimated over 600 million people suffer from some form of hearing impairment. According to the World Health Organization, 278 million people in the world are affected by moderate hearing loss. Yet the global production of hearing aids does not come anywhere close to meeting the need.

The Solar Aid needs only six to eight hours of sunlight to recharge for a full week. And it is fully compliant with WHO guidelines. Conventional hearing aids and batteries are very expensive and often not locally available. Solar Aid batteries can take 400 charges before being replaced.

The Solar Aid hearing aid was developed through field testing, funds were raised for further design improvements, and it went on to win several awards. But it initially failed to earn back its production costs and so the Godisa Technologies Trust was established to sweat the details on making it sustainable. It was developed in partnership with the [Botswana Technology Centre](#).

"I want to help other deaf people to have access to education training and employment. I would like to use my skills and opportunities to help other deaf people achieve their goals," said one of Godisa's technicians, Sarah Phiri. So successful are these hearing aids, there is interest around the world, including in Canada.

Adequate street lighting has been proven to cut down muggings and improve public safety, reduce traffic accidents, and boost business confidence in neighbourhoods because people feel safe going there. [StarSight's](#) street lamps combine solar-powered street lighting and internet access in a wireless configuration, freeing up the lighting poles from needing to access the main power and telephone grids. Each one contains VoIP, wi-fi broadband, CCTV and are being rolled out in Istanbul.

StarSight street lamp poles, designed in Turkey, are also being rolled out in Martinique, Republic of Congo, Cameroon, and Cote d'Ivoire. StarSight's goal is to install 70,000 street lamps by 2011. Malaysia and Indonesia are next.

[d.light design](#) is a social enterprise targeting the 1.6 billion people who rely on kerosene oil to light their lanterns, or use candles. There is an ambitious goal behind this business: they want to replace all the kerosene lanterns in the world with their lights within the next ten years. They use light emitting diode (LED) technology and are about commercializing light and power solutions for families living without electricity in emerging markets.

Better lighting has many benefits, including helping children and adults to study and learn during dark hours. Importantly, it will make the air inside dwellings cleaner and the environment safer without the risk of fire. Indoor air pollution is one of the biggest killers of children under five in India. UNDP has found that families with improved lighting see a 30 per cent increase in their income because they can keep doing things at night.

On high beam, the lights last five hours; on low beam, they last for 200 hours without a charge. It can be re-charged by solar panels or by normal electric outlet. They promise consumers can expect to save \$150 over five years. They have received additional support from the Acumen Fund to enter the peri-urban and, later, the rural market in India.

#### LINKS:

- [Rockefeller Foundation Innovation for Development Initiative](#): It will "spur the development of solutions to the challenges facing poor or vulnerable people around the world."  
**Team leader:** Maria Blair  
**Email:** [Innovation\\_dev@rockfound.org](mailto:Innovation_dev@rockfound.org)
- [Pratt Design Incubator for Sustainable Innovation](#): It brings together the entrepreneurial talents of designers, artists and architects with one goal: to link the social entrepreneur with the business of design. Budding social entrepreneurs get start-up support, design help and connection to mentors.
- [E and Co](#): An investor providing seed funding to energy entrepreneurs in developing countries.
- [SEAF \(Small Enterprise Assistance Fund\)](#): A global investment firm focused on helping small companies and entrepreneurs in emerging markets, and those underserved by traditional sources of capital.
- [Microplace](#): An online marketplace to connect retail investors (anybody looking to invest US \$100 or more) with microfinance organisations looking for funds.



### ■ Reclaiming Democracy

by Joerg Forbrig and Pavol Demes, Publisher: German Marshall Fund of the United States.

**Website:** [Reclaiming Democracy](#)

### ■ NGO-in-a-box

Publisher: Frontline Defenders

--Aimed at budding NGOs, it provides for free security and protection tools when using the internet.

**Website:** <http://ngoinbox.org>

### ■ MobileActive Strategy Guides

by MobileActive, Green Media Toolshed and NTEN.

--Designed to equip organizations around the world with the know-how to deploy effective mobile campaigns.

**Website:** <http://mobileactive.org/>

### ■ Building Knowledge Economies: Advanced Strategies for Development

Publisher: World Bank.

--The book argues that whatever level of development, countries should consider embarking on a knowledge- and innovation-based development process.

**Website:** <http://publications.worldbank.org>

### ■ The Invisible Cure: Africa, the West, and the Fight Against AIDS

by Helen Epstein, Publisher: Farrar, Straus and Giroux

**Website:** [NYTimes article](#)

### ■ The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It

by Paul Collier

**Website:** [Amazon.com](#)

## Job Opportunities

#### ■ [Africa Recruit Job Compendium](#)

##### ■ [Africa Union](#)

##### ■ [CARE](#)

#### ■ [Christian Children's Fund](#)

##### ■ [ECOWAS](#)

#### ■ [International Crisis Group](#)

#### ■ [International Medical Corps](#)

#### ■ [International Rescue Committee](#)

##### ■ [Internews](#)

##### ■ [IREX](#)

#### ■ [Organization for International Migration](#)

##### ■ [Oxfam](#)

#### ■ [Relief Web Job Compendium \(UN OCHA\) \(1\)](#)

#### ■ [Relief Web Job Compendium \(UN OCHA\) \(2\)](#)

##### ■ [Save the Children](#)

#### ■ [The Development Executive Group job compendium](#)

##### ■ [Trust Africa](#)

##### ■ [UN Jobs](#)

##### ■ [UNDP](#)

##### ■ [UNESCO](#)

##### ■ [UNICEF](#)

##### ■ [World Bank](#)

#### ■ [World Wildlife Fund \(Cameroon\)](#)



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